CLAIMS

1   1. A computer-implemented remote device monitoring system, comprising:

2   a processor; and

3   a computer readable medium encoded with processor readable instructions that when

4   executed by the processor implement,

5   a device information collecting mechanism configured to collect information from a

6   device connected to a first network using a network management protocol;

7   a device information sending mechanism configured to send the information to a

8   monitor connected to a second network via a wide area network using a protocol; and

9   a device information receiving mechanism configured to receive the information

10   using the protocol and store the information in a digital repository connected to the second

11   network.

1   2. The system of Claim 1, wherein the information comprises at least one of status

2   information corresponding to the device and configuration information corresponding to the

3   device.

1   3. The system of Claim 2, wherein the device comprises a printer.

1   4. The system of Claim 2, wherein status information comprises at least one of a low

2   paper indicator, a no paper indicator, a low toner indicator, a no toner indicator, door open

3   indicator, a jammed indicator, an offline indicator, and a service requested indicator.

1   5. The system of Claim 2, wherein configuration information comprises at least one

2   of a manufacturer of the device, a model of the device, a serial number of the device, a media

3   access control address, an Internet protocol address, a company name, a street address, a city,

4   a state, a postal code, a physical location of the device, a contact person for the device, a

5   phone number for the contact person, and an e-mail address for the contact person.

1   6. The system of Claim 1, wherein at least a portion of the wide area network

2   comprises the Internet.

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1   7. The system of Claim 1, wherein the protocol comprises at least one of a simple

2 mail transfer protocol and an Internet mail access protocol.

1   8. The system of Claim 1, wherein at least a portion of at least one of the first

2 network and the second network comprises an intranet.

1   9. The system of Claim 1, wherein the digital repository comprises a database.

1   10. The system of Claim 1, wherein:

2   the computer readable medium is further encoded with processor readable instructions

3 that when executed by the processor further implements,

4   a device information storing mechanism configured to store the information collected

5 by the device information collecting mechanism in a first digital repository connected to the

6 first network; and

7   the device information sending mechanism is further configured to retrieve the

8 information from the first digital repository.

1   11. The system of Claim 10, wherein the digital repository comprises a database.

1   12. The system of Claim 1, wherein the processor readable instructions comprises at

2 least one of a dynamic link library, a static link library, a script, a JAVA class, a C++ class,

3 and a C library routine.

1   13. The system of Claim 1, wherein the network management protocol comprises a

2 simple network management protocol.

1   14. The system of Claim 1, wherein the device information receiving mechanism is

2 further configured to store the information in the digital repository through an open database

3 connectivity interface.

1   15. The system of Claim 10, wherein the device information storing mechanism is

2 further configured to store the information in the first digital repository through an open

3 database connectivity interface.

1   16. A method for remotely monitoring network devices, comprising the steps of:

2   collecting information from a device connected to a first network using a network

3 management protocol;

4   sending the information collected in the collecting step to a monitor connected to a

5 second network via a wide area network using a protocol;

6   receiving the information sent in the sending step by the monitor; and

7   storing the information received in the receiving step in a digital repository connected

8 to the second network.

1   17. The method of Claim 16, wherein the information comprises at least one of status

2 information corresponding to the device and configuration information corresponding to the

3 device.

1   18. The method of Claim 16, wherein the device comprises a printer.

1   19. The method of Claim 16, wherein at least a portion of the wide area network

2 comprises the Internet.

1   20. The method of Claim 16, wherein the network management protocol comprises a

2 simple network management protocol.

1   21. The method of Claim 16, wherein the protocol comprises at least one of a simple

2 mail transfer protocol and an Internet access protocol.

1   22. The method of Claim 16, wherein the digital repository comprises a database.

1   23. The method of Claim 16, further comprising the steps of:

2   storing the collected information collected in the in the collecting step in a first digital

3   repository; and

4   retrieving the information stored in the storing the collected information step from the

5   first digital repository.

1   24. The method of Claim 23, wherein the first digital repository comprises a

2   database.

1   25. A computer program product, comprising:

2   a computer storage medium; and

3   a computer program code mechanism embedded in the computer storage medium for

4   causing a computer to remotely monitor a device connected to a first network with a monitor

5   connected to a second network, the computer program code mechanism having,

6   a first computer code device configured to collect information from the device

7   using a network management protocol,

8   a second computer code device configured to send the information to the

9   monitor via a wide area network using a protocol,

10   a third computer code device configured to receive the information sent to the

11   monitor; and

12   a fourth computer code device configured to store the information received in

13   a digital repository connected to the second network.

1   26. The computer program product of Claim 25, wherein the information comprises

2   at least one of status information corresponding to the device and configuration information

3   corresponding to the device.

1   27. The computer program product of Claim 25, wherein the device comprises a

2   printer.

1   28. The computer program product of Claim 25, wherein at least a portion of the

2   wide area network comprises the Internet.

1 29. The computer program product of Claim 25, wherein the network management
2 protocol comprises a simple network management protocol.

1 30. The computer program product of Claim 25, wherein the protocol comprises at
2 least one of a simple mail transfer protocol and an Internet access protocol.

1 31. The computer program product of Claim 25, wherein the digital repository
2 comprises a database.

1 32. The computer program product of Claim 25, wherein the computer program code
2 mechanism further having,
3   a fifth computer code device configured to store the information collected by
4 the first computer code device in a first digital repository, and
5   a sixth computer code device configured to retrieve the information from the
6 first digital repository.

1 33. The computer program product of Claim 32, wherein the first digital repository
2 comprises a database.

1 34. A system for remotely monitoring network devices, comprising:
2   means for collecting information from a device connected to a first network using a
3 network management protocol;
4   means for sending the information collected in the collecting step to a monitor
5 connected to a second network via a wide area network using a protocol;
6   means for receiving the information sent in the sending step by the monitor; and
7   means for storing the information received in the receiving step in a digital repository
8   connected to the second network.

1 35. The system of Claim 34, wherein:
2   the network management protocol is a simple network management protocol; and
3   the protocol is at least one of a simple mail transfer protocol and an Internet mail
4 access protocol.